

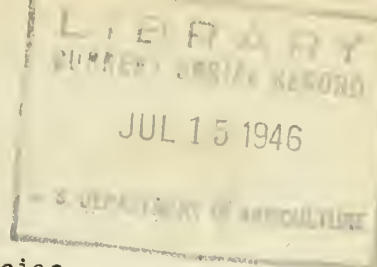
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BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE  
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In Cooperation with State, Federal and other Agencies

COTTON INSECT CONDITIONS FOR WEEK ENDING JULY 6, 1946  
(Sixth Cotton Insect Survey Report for 1946)

This was another week of serious boll weevil damage in many counties of Texas, Louisiana, Mississippi, Alabama, Georgia and the Carolinas. Unless hot, dry weather checks the weevils over large areas, they could become more abundant than in any recent year, including 1941. Cotton growers who have had heavy boll weevil infestations in their fields during any previous year should be prepared to fight the weevils during July and August. When the fields are heavily infested, that is when 15 to 25 percent, or more, of the squares are punctured, the only known practical method of control is to dust the cotton plants thoroughly with calcium arsenate every four or five days until the weevil population has been reduced or a satisfactory crop of bolls has developed.

DUSTING MACHINES: Reports from several areas indicate the danger of a shortage of dusting machines this summer. Cotton growers should be prepared to dust when and if necessary. Under present conditions no grower can afford to let insects destroy even 10 or 15 percent of his crop. Growers who have experienced losses from insects in recent years should make a special effort to be prepared this season to make a successful fight against them. More airplanes will probably be used for applying insecticides than ever before. Reports indicate airplanes are now dusting some cotton fields in many areas from California to South Carolina, but especially in Texas.

BOLL WEEVIL

TEXAS: Weather favorable for growth and development of cotton and for insect control except for rains in the Coastal Section and high temperatures and drying winds in the northwestern part of the State. Fields are generally clean and well cultivated except in the southeast. Harvesting of cotton is now general in the Lower Rio Grande Valley and has begun in the Corpus Christi area. A good crop is in prospect. Some gins are running at full capacity. Cyanamid is being used by a few growers to defoliate plants in order to hasten the opening of the bolls and to lessen the damage from boll rot where the cotton has made a rank growth. In only a few fields were the boll weevils numerous enough to cause damage and some fields are still entirely free of weevils.

In 399 fields examined in 46 counties in the eastern half of the State there was an average of 41% punctured squares; 18 of these fields located in the southern and southeastern part of the State were free of weevils. In 83 fields less than 10% of the squares were punctured; in 76 fields the infestations ranged from 10 to 15% punctured squares. In 72 fields between 25% and 50% of the squares were punctured, and in 150 fields more than 50% of the squares were punctured. Heavy infestations were found in most of the counties where fields were examined.

OKLAHOMA: Conditions were favorable for cotton growth in the southeastern part of the State and the plants are beginning to square. Examination made in 41 fields in McClain, Pottawatomie, Seminole, Garvin and Murray Counties in the South Central part of the State averaged 244 weevils per acre.

LOUISIANA: Weather conditions continued favorable for weevil development throughout the State. Much interest in poisoning has been reported and some poisoning has been started. The total amount of calcium arsenate is limited. However, reports indicate that sales to date have not exhausted the supply in any area.

In 14 counties in Louisiana the average infestation was 24% punctured squares. In 6% of the fields there were no punctured squares; in 25% the infestations were less than 10%. In 29% the infestations were from 10% to 25%; in 30% from 25% to 50%; and in 10% of the fields over 50% of the squares were punctured. The heaviest infestations were reported in Aroyelles, Bienville, Concordia, Ouachita, Richland, Tensas and Webster Counties.

ARKANSAS: Conditions continued favorable for weevils in southeastern Arkansas. In 6 counties the average square infestation was 12%. In 10% of the fields there were no punctured squares; in 42% the infestation was less than 10%; in 38% the infestations ranged from 10 to 25%; and in 10% from 26% to 50%. The heaviest infestations were reported from Ashley and Chicot Counties.

MISSISSIPPI: Weather continued favorable for weevil development. In 13 Delta counties, 138 cotton fields were examined and no weevils were found in 64 fields in Bolivar, Coahoma, Holmes, Humphreys, Leflore, Quitman, Sharkey, Sunflower, Tallahatchie and Washington Counties. Fifty-four fields had less than 10% of the squares infested; in 12 fields the infestations ranged from 10 to 25% punctured squares and in 8 fields the infestations ranged between 25 and 50% punctured squares. The heaviest infestations were reported from Warren County, but fields with more than 30% punctured squares were recorded in Holmes, Issaquena, Sharkey and Washington Counties. All of the 22 fields examined in Issaquena, Warren and Yazoo Counties were infested with boll weevils. The average of all fields examined in the Delta is 5% punctured squares. A year ago at this time the average was 5.8% punctured squares. The average for all infested fields examined in the Delta Counties is 9% punctured squares, the same as a year ago at this time. A cotton planting company in Bolivar County reports that weevils were found in 62 of 68 fields examined, but in only 17 of these fields were more than 10% of the squares punctured, and the highest infestation was 38%.

The State Plant Board reports weevils generally abundant in the Hill section of the State, except in the extreme northeast corner. Although in general the infestations are still too light to justify the use of calcium arsenate, heavy infestations were reported in Chickasaw, Jasper, Lafayette, Lee, Panola, Pontotoc and Wayne Counties where serious losses may be expected if the growers do not dust with calcium arsenate.

ALABAMA: Mr. W. A. Ruffin, Extension Entomologist, wired July 8: "Weevil infestation serious over southern half State. Aphids are getting to be very numerous in this area. Supply calcium arsenate adequate at present. No calcium arsenate-nicotine mixture available. Supply of dust guns fair. Need more machines. Airplanes are being used for dusting crops to some extent."



GEORGIA: Weather conditions were favorable for crop growth and weevil development throughout the State and infestations continued high.

The average infestation in 27 fields in 17 counties in the southern and north central portion of the State was 40%. The infestations ranged up to 86% punctured squares, but in the few fields examined in Barrow, Butts, Clayton and Gwinnett Counties no weevils were found.

In the southern areas much of the cotton has passed the squaring peak and has set a fair portion of the crop. Good bottom crops are common, but the top and middle crop is very light. In many undusted fields there is little bloom and few squares because of the weevil.

SOUTH CAROLINA: Weather conditions were generally unfavorable for cotton and favorable for weevil development throughout the State. Cloudy, rainy days accompanied by unseasonably cool nights prevailed most of the week. Rainfall was recorded at the Florence laboratory each day from July 1 to July 5, inclusive.

In 129 fields examined in 19 counties in the Piedmont and upper Coastal Plains area, 124 were infested with an average of 17.44% punctured squares. The range was from an average of 6.6% in Cherokee to 27.7% in Anderson County. The boll weevil situation in the areas covered in South Carolina is now in a critical stage. The cotton is fruiting rapidly and first generation weevils are emerging in large numbers. Conditions favorable for weevil development have prevailed during the week and the prospects are that the infestations will increase from now on, with danger of the worst boll weevil year since 1941. No shortages of calcium arsenate or dusting machines have been reported. Airplanes have been used for dusting some fields.

NORTH CAROLINA: Weather conditions were favorable for weevils and unfavorable for cotton. From examinations made in 95 fields in 13 counties, 92 were found infested. Eleven of these counties were in the southern and eastern parts of the State where the average infestation was 25%, ranging from 12.5% in Mecklenburg County to 32.5% in Union County. Two Piedmont Counties averaged 2.7% and 8.2%. Twenty-six of the infested fields had less than 10% punctured squares; 30 fields had infestations ranging from 10 to 25%; in 28 fields the infestation ranged from 25% to 50%; and in 8 fields more than 50% of the squares were punctured.

#### COTTON FLEA HOPPER

TEXAS: Flea hopper populations have decreased to below the damaging point in many fields in south Texas where cotton is maturing, or where poisoning has been done, but have increased to damaging numbers in scattered fields as far north as Kaufman and Van Zandt Counties.

OKLAHOMA: Flea hoppers are beginning to make their appearance in southern Oklahoma, but no serious damage has been reported.

GEORGIA: Flea hoppers were reported in damaging numbers in Butts and Henry Counties. These counties usually have hopper damage but no reports have been received from the eastern part of the State where flea hoppers usually occur.

COTTON LEAFWORM

Leafworms were found in Bee and San Patricio Counties this week, making a total of 7 South Texas Counties infested thus far this year. The heaviest infestation reported is in Nueces County where all sizes of worms are present on one farm. No heavy outbreaks have been reported, although cotton and weather conditions continue favorable for leafworm development in the Coastal area.

BOLLWORM

Serious bollworm damage was reported in Laurens County in Central Georgia, and bollworms were reported in damaging numbers from Johnson County and throughout the southern portion of the State.

Bollworm eggs and larvae were reported from several areas in Texas, but no serious damage had occurred.

MISCELLANEOUS INSECTS

GRASSHOPPERS: Heavy populations of grasshoppers were found around the edges of many cotton fields in Ellis and other counties in Central Texas, and several hundred acres of cotton have been completely destroyed by these insects in Navarro County.

BEET ARMYWORMS: Some damage to cotton from beet armyworms was reported in Pinal County, Arizona. One field in the Eloy area will be dusted partly with a 5% DDT-sulfur mixture and partly with benzene hexachloride for their control.

APHIDS: Reported numerous in the southern counties of Alabama.

ROOT APHIDS: Trifidaphis phaseoli (Pass.) were reported by Supt. E. T. Batten and Dr. J. M. Grayson of the Nansemond County Agricultural Experiment Station as injuring young cotton during June at Holland, Virginia.

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July 10, 1946